

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

IN THE CLAIMS

*The status of the claims as presently amended is as follows:*

1. (Currently Amended) An image processing apparatus which selects at least one image forming apparatus from a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, said at least one image forming apparatus having predetermined printing attributes, and outputs image data to the selected at least one image forming apparatus, the image processing apparatus comprising:

input means for inputting a group of image data;

distributing means for distributing the input group of image data depending on printing attributes of the group of image data;

a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;

selecting means for selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the image processes executed by said image processing means; and

output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said image processing means comprises first and second image processing means for executing image processes depending on said first printing attribute and said second printing attribute, respectively,

wherein said image processing apparatus further comprises judging means for judging whether or not each of the image data of said group belongs to said first printing attribute after said first image processing means have executed the image process on all the image data of said group, and image process re-executing means for determining that each of the image data belongs to said second printing attribute and causing said second image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is negative, and

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

wherein said output means outputs the image data on which said image processes have been executed by said first image processing means and said second image processing means, to said selected at least two image forming apparatuses, respectively.

2. *(Canceled)*

3. *(Currently Amended)* An image processing apparatus according to claim 1, which selects at least one image forming apparatus from a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, said at least one image forming apparatus having predetermined printing attributes, and outputs image data to the selected at least one image forming apparatus, the image processing apparatus comprising:

input means for inputting a group of image data;

distributing means for distributing the input group of image data depending on printing attributes of the group of image data;

a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;

selecting means for selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the image processes executed by said image processing means; and

output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses.

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said image processing means comprises first image processing means, and second and third image processing means for executing image processes depending on said first printing attribute and said second printing attribute, respectively.

wherein said image processing apparatus further comprises judging means for judging whether or not each of the image data of said group belongs to said first printing attribute after said first image processing means have executed the image process on all the image data of said

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

group, first image process re-executing means for determining that each of the image data belongs to said first printing attribute and causing said second image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is affirmative, and second image process re-executing means for determining that each of the image data belongs to said second printing attribute and causing said third image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is negative, and

wherein said output means outputs the image data on which said image processes have been executed by said second image processing means and said third image processing means, to said selected at least two image forming apparatuses, respectively.

4. (*Original*) An image processing apparatus according to claim 3, wherein said first image processing means has a lower resolution than resolutions of said second and third image processing means.

5. (*Original*) An image processing apparatus according to claim 1, wherein said image processing means comprises first image processing means for executing an image process corresponding to a first resolution, and second image processing means for executing an image process corresponding to a second resolution, and wherein said output means outputs the image data on which said image processes have been executed by said first image processing means and said second image processing means, respectively, to said selected at least two image forming apparatuses which have printing attributes compatible to a result of the execution of the image process corresponding to said first resolution and a result of the execution of the image process corresponding to said second resolution, respectively.

6. (*Currently Amended*) An image processing apparatus according to claim 1, which selects at least one image forming apparatus from a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, said at least

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

one image forming apparatus having predetermined printing attributes, and outputs image data to the selected at least one image forming apparatus, the image processing apparatus comprising:

input means for inputting a group of image data;

distributing means for distributing the input group of image data depending on printing attributes of the group of image data;

a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;

selecting means for selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the image processes executed by said image processing means; and

output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing means distributes the input group of image data as a first group of image data having said first printing attribute and a second group of image data having said second printing attribute, and

wherein said output means comprises first output means for outputting said first group of image data having said first printing attribute to a first image forming apparatus, second output means for outputting said second group of image data having said second printing attribute to a second image forming apparatus, and delimiter paper supply commanding means for issuing a command instructing supply of delimiter paper to at least one of said first and second image forming apparatuses, at at least one portion of the first and second groups of image data where printing attributes are to be switched.

7. (Original) An image processing apparatus according to claim 6, wherein said at least one of said first and second image forming apparatuses comprises a plurality of feeding sections, and said output means comprises control means for providing such control that said delimiter paper

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

is fed from a feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

8. (Currently Amended) An image processing apparatus according to claim 1, which selects at least one image forming apparatus from a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, said at least one image forming apparatus having predetermined printing attributes, and outputs image data to the selected at least one image forming apparatus, the image processing apparatus comprising:

input means for inputting a group of image data;

distributing means for distributing the input group of image data depending on printing attributes of the group of image data;

a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;

selecting means for selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the image processes executed by said image processing means; and

output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing means distributes the input group of image data as a first group of image data having said first printing attribute and a second group of image data having said second printing attribute, and

wherein said output means comprises first output means for outputting said first group of image data having said first printing attribute to a first image forming apparatus, second output means for outputting said second group of image data having said second printing attribute to a second image forming apparatus, and paper supply commanding means for issuing a command instructing supplying to at least one of said first and second image forming apparatuses a predetermined number of sheets of recording paper corresponding to one of said first and second

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

groups of image data output to anotherthe other of said first and second image forming apparatuses, at at least one portion of the first and second groups of image data where printing attributes are to be switched.

9. (*Original*) An image processing apparatus according to claim 8, wherein said at least one of said first and second image forming apparatuses comprises a plurality of feeding sections, and said output means comprises control means for providing such control that said predetermined number of sheets of recording paper are fed from a feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

10. (*Original*) An image processing apparatus according to claim 9, comprising judging means for judging whether or not images are to be formed on said predetermined number of sheets of recording paper, and wherein said output means comprises image formation commanding means for issuing a command instructing an image forming process to be executed on said predetermined number of sheets of recording paper using a printing attribute of one of said first and second image forming apparatuses if a result of the judgment by said judging means is affirmative.

11. (*Original*) An image processing apparatus according to claim 9, comprising judging means for judging whether or not images are to be formed on said predetermined number of sheets of recording paper, and wherein said output means comprises non-image formation commanding means for issuing a command instructing a non-image forming process to be executed on said predetermined number of sheets of recording paper if a result of the judgment by said judging means is negative.

12. (*Original*) An image processing apparatus according to claim 8, wherein said output means

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

comprises partition paper supply commanding means for issuing a command instructing partition paper to be supplied between said first group of image and said second group of image data.

13. (*Original*) An image processing apparatus according to claim 1, comprising managing means for managing said group of image data for each page, and wherein said distributing means distributes said group of image data for each page.

14. (*Original*) An image processing apparatus according to claim 13, comprising conversion means for converting said group of image data into a format that enables said group of image data to be managed for each page.

15. (*Original*) An image processing apparatus according to claim 1, wherein said printing attributes include at least color printing, and black-and-white printing.

16. (*Currently Amended*) An image processing system comprising an information processing apparatus directly operated by a user, a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, and an image processing apparatus for controlling said plurality of image forming apparatuses in response to a request from said information processing apparatus, said information processing apparatus, said plurality of image forming apparatuses, and said image processing apparatus being connected to each other, said image processing apparatus selecting at least one image forming apparatus from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus,

wherein said image processing apparatus comprises input means for inputting a group of image data, distributing means for distributing the input group of image data depending on printing attributes of the group of image data, a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data, selecting means for selecting at least two image forming

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes executed by said image processing means, and output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses.

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said image processing means comprises first and second image processing means for executing image processes depending on said first printing attribute and said second printing attribute, respectively.

wherein said image processing apparatus further comprises judging means for judging whether or not each of the image data of said group belongs to said first printing attribute after said first image processing means have executed the image process on all the image data of said group, and image process re-executing means for determining that each of the image data belongs to said second printing attribute and causing said second image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is negative, and

wherein said output means outputs the image data on which said image processes have been executed by said first image processing means and said second image processing means, to said selected at least two image forming apparatuses, respectively.

17. (*Canceled*)

18. (*Currently Amended*) An image processing system according to claim 16, comprising an information processing apparatus directly operated by a user, a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, and an image processing apparatus for controlling said plurality of image forming apparatuses in response to a request from said information processing apparatus, said information processing apparatus, said plurality of image forming apparatuses, and said image processing apparatus being connected to each other, said image processing apparatus selecting at

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

least one image forming apparatus from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus.

wherein said image processing apparatus comprises input means for inputting a group of image data, distributing means for distributing the input group of image data depending on printing attributes of the group of image data, a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data, selecting means for selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes executed by said image processing means, and output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said image processing means comprises first image processing means, and second and third image processing means for executing image processes depending on said first printing attribute and said second printing attribute, respectively,

wherein said image processing apparatus further comprises judging means for judging whether or not each of the image data of said group belongs to said first printing attribute after said first image processing means have executed the image process on all the image data of said group, first image process re-executing means for determining that each of the image data belongs to said first printing attribute and causing said second image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is affirmative, and second image process re-executing means for determining that each of the image data belongs to said second printing attribute and causing said third image processing means to again execute the image process on the each of the image data when a result of the judgment by said judging means is negative, and

wherein said output means outputs the image data on which said image processes have been executed by said second image processing means and said third image processing means, to said selected at least two image forming apparatuses, respectively.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

19. (*Original*) An image processing system according to claim 18, wherein said first image processing means has a lower resolution than resolutions of said second and third image processing means.

20. (*Original*) An image processing system according to claim 16, wherein said image processing means comprises first image processing means for executing an image process corresponding to a first resolution, and second image processing means for executing an image process corresponding to a second resolution, and wherein said output means outputs the image data on which said image processes have been executed by said first image processing means and said second image processing means, respectively, to said selected at least two image forming apparatuses which have printing attributes compatible to a result of the execution of the image process corresponding to said first resolution and a result of the execution of the image process corresponding to said second resolution, respectively.

21. (*Currently Amended*) An image processing system according to claim 16, comprising an information processing apparatus directly operated by a user, a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, and an image processing apparatus for controlling said plurality of image forming apparatuses in response to a request from said information processing apparatus, said information processing apparatus being connected to each other, said image processing apparatus selecting at least one image forming apparatus from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus,

wherein said image processing apparatus comprises input means for inputting a group of image data, distributing means for distributing the input group of image data depending on printing attributes of the group of image data, a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data, selecting means for selecting at least two image forming

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes executed by said image processing means, and output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing means distributes the input group of image data as a first group of image data having said first printing attribute and a second group of image data having said second printing attribute, and

wherein said output means comprises first output means for outputting said first group of image data having said first printing attribute to a first image forming apparatus, second output means for outputting said second group of image data having said second printing attribute to a second image forming apparatus, and delimiter paper supply commanding means for issuing a command instructing supply of delimiter paper to at least one of said first and second image forming apparatuses, at at least one portion of the first and second groups of image data where printing attributes are to be switched.

22. (*Original*) An image processing system according to claim 21, wherein said at least one of said first and second image forming apparatuses comprises a plurality of feeding sections, and said output means comprises control means for providing such control that said delimiter paper is fed from a feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

23. (*Currently Amended*) An image processing system according to claim 16, comprising an information processing apparatus directly operated by a user, a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, and an image processing apparatus for controlling said plurality of image forming apparatuses in response to a request from said information processing apparatus, said information processing apparatus, said plurality of image forming apparatuses, and said image

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

processing apparatus being connected to each other, said image processing apparatus selecting at least one image forming apparatus from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus,

wherein said image processing apparatus comprises input means for inputting a group of image data, distributing means for distributing the input group of image data depending on printing attributes of the group of image data, a plurality of image processing means for executing image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data, selecting means for selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes executed by said image processing means, and output means for outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing means distributes the input group of image data as a first group of image data having said first printing attribute and a second group of image data having said second printing attribute, and

wherein said output means comprises first output means for outputting said first group of image data having said first printing attribute to a first image forming apparatus, second output means for outputting said second group of image data having said second printing attribute to a second image forming apparatus, and paper supply commanding means for issuing a command instructing supplying to at least one of said first and second image forming apparatuses a predetermined number of sheets of recording paper corresponding to one of said first and second groups of image data output to another the other of said first and second image forming apparatuses, at at least one portion of the first and second groups of image data where printing attributes are to be switched.

24. (*Original*) An image processing system according to claim 23, wherein said at least one of said first and second image forming apparatuses comprises a plurality of feeding sections, and

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

said output means comprises control means for providing such control that said predetermined number of sheets of recording paper are fed from a feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

25. (*Currently Amended*) An image processing system according to claim 23 or 24, comprising judging means for judging whether or not images are to be formed on said predetermined number of sheets of recording paper, and wherein said output means comprises image formation commanding means for issuing a command instructing an image forming process to be executed on said predetermined number of sheets of recording paper using a printing attribute of one of said first and second image forming apparatuses if a result of the judgment by said judging means is affirmative.

26. (*Original*) An image processing system according to claim 24, comprising judging means for judging whether or not images are to be formed on said predetermined number of sheets of recording paper, and wherein said output means comprises non-image formation commanding means for issuing a command instructing a non-image forming process to be executed on said predetermined number of sheets of recording paper if a result of the judgment by said judging means is negative.

27. (*Original*) An image processing system according to claim 24, wherein said output means comprises partition paper supply commanding means for issuing a command instructing partition paper to be supplied between said first group of image and said second group of image data.

28. (*Original*) An image processing system according to claim 16, comprising managing means for managing said group of image data for each page, and wherein said distributing means distributes said group of image data for each page.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

29. (*Original*) An image processing system according to claim 28, comprising conversion means for converting said group of image data into a format that enables said group of image data to be managed for each page.

30. (*Original*) An image processing system according to claim 16, wherein said printing attributes include at least color printing, and black-and-white printing.

31. (*Currently Amended*) An image data processing method of processing image data using an image processing apparatus connected to a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, for controlling said plurality of image forming apparatuses, said image processing apparatus selecting at least one image forming apparatus having predetermined printing attributes from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus, the image data processing method comprising the steps of:

- inputting a group of image data;
- executing a distribution process of distributing the input group of image data depending on printing attributes of the group of image data;
- executing a plurality of image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;
- selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes; and
- executing an output process of outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said image processes comprise first and second image processes for executing image processes depending on said first printing attribute and said second printing attribute, respectively.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

wherein said image data processing method further comprises judging whether or not each of the image data of said group belongs to said first printing attribute after said first image process has been executed on all the image data of said group, determining that each of the image data belongs to said second printing attribute and again executing said second image process on the each of the image data when a result of the judgment by said judging step is negative, and

wherein said output process comprises outputting the image data on which said first and second image processes have been executed, to said selected at least two image forming apparatuses, respectively.

32. (*Canceled*)

33. (*Currently Amended*) An image data processing method according to claim 31, of processing image data using an image processing apparatus connected to a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, for controlling said plurality of image forming apparatuses, said image processing apparatus selecting at least one image forming apparatus having predetermined printing attributes from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus, the image data processing method comprising the steps of:

inputting a group of image data;

executing a distribution process of distributing the input group of image data depending on printing attributes of the group of image data;

executing a plurality of image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;

selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes; and

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

executing an output process of outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said image processes comprise a first image process, and second and third image processes which are executed depending on said first printing attribute and said second printing attribute, respectively,

wherein said image data processing method further comprises judging whether or not each of the image data of said group belongs to said first printing attribute after said first image process has been executed on all the image data of said group, determining that each of the image data belongs to said first printing attribute and again executing said second image process on the each of the image data when a result of the judgment by said judging step is affirmative, and determining that each of the image data belongs to said second printing attribute and again executing said third image process on the each of the image data, and

wherein said output process comprises outputting the image data on which said second and third image processes have been executed, to said selected at least two image forming apparatuses, respectively.

34. (*Original*) An image data processing method according to claim 33, wherein said first image process has a lower resolution than resolutions of said second and third image processes.

35. (*Original*) An image data processing method according to claim 31, wherein said image processes comprise a first image process corresponding to a first resolution, and a second image process corresponding to a second resolution, and wherein said output process comprises outputting the image data on which said first and second image processes have been executed, respectively, to said selected at least two image forming apparatuses which have printing attributes compatible to a result of the execution of the first image process corresponding to said first resolution and a result of the execution of the second image process corresponding to said second resolution, respectively.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

36. (*Currently Amended*) An image data processing method according to claim 31, of processing image data using an image processing apparatus connected to a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, for controlling said plurality of image forming apparatuses, said image processing apparatus selecting at least one image forming apparatus having predetermined printing attributes from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus, the image data processing method comprising the steps of:

inputting a group of image data;

executing a distribution process of distributing the input group of image data depending on printing attributes of the group of image data;

executing a plurality of image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;

selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes; and

executing an output process of outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing process comprises distributing the input group of image data as a first group of image data having said first printing attribute and a second group of image data having said second printing attribute, and

wherein said output process comprises outputting said first group of image data having said first printing attribute to a first image forming apparatus, outputting said second group of image data having said second printing attribute to a second image forming apparatus, and issuing a command instructing supply of delimiter paper to at least one of said first and second image forming apparatuses, at at least one portion of the first and second groups of image data where printing attributes are to be switched.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

37. (*Original*) An image data processing method according to claim 36, wherein said at least one of said first and second image forming apparatuses comprises a plurality of feeding sections, and said output process comprises providing such control that said delimiter paper is fed from a feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

38. (*Currently Amended*) An image data processing method according to claim 31, of processing image data using an image processing apparatus connected to a plurality of image forming apparatuses including at least two types of image forming apparatuses having different printing attributes, for controlling said plurality of image forming apparatuses, said image processing apparatus selecting at least one image forming apparatus having predetermined printing attributes from said plurality of image forming apparatuses, and outputting image data to the selected at least one image forming apparatus, the image data processing method comprising the steps of:

inputting a group of image data;

executing a distribution process of distributing the input group of image data depending on printing attributes of the group of image data;

executing a plurality of image processes corresponding respectively to printing attributes of the distributed image data, on the group of image data;

selecting at least two image forming apparatuses from said plurality of image forming apparatuses, which have printing attributes compatible with results of the execution of the image processes; and

executing an output process of outputting the image data on which said image processes have been executed, to the selected at least two image forming apparatuses,

wherein said printing attributes comprise at least a first printing attribute, and a second printing attribute, and said distributing process comprises distributing the input group of image data as a first group of image data having said first printing attribute and a second group of image data having said second printing attribute, and

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

wherein said output process comprises outputting said first group of image data having said first printing attribute to a first image forming apparatus, outputting said second group of image data having said second printing attribute to a second image forming apparatus, and issuing a command instructing supplying to at least one of said first and second image forming apparatuses a predetermined number of sheets of recording paper corresponding to one of said first and second groups of image data output to ~~another~~the other of said first and second image forming apparatuses, at at least one portion of the first and second groups of image data where printing attributes are to be switched.

39. (*Original*) An image data processing method according to claim 38, wherein said at least one of said first and second image forming apparatuses comprises a plurality feeding sections, and said output process comprises providing such control that said predetermined number of sheets of recording paper are fed from a feeding section different from a feeding section from which recording paper for said first group of image data or said second group of image data is fed.

40. (*Original*) An image data processing method according to claim 39, comprising judging whether or not images are to be on said predetermined number of sheets of recording paper, and wherein said output process comprises issuing a command instructing an image forming to be executed on said predetermined number of sheets of recording paper using a printing attribute of one of said first and second image forming apparatuses if a result of the judgment by said judging step is affirmative.

41. (*Original*) An image data processing method according to claim 39, comprising judging whether or not images are to be formed on said predetermined number of sheets of recording paper, and wherein said output process comprises issuing a command instructing a non-image forming process to be executed on said predetermined number of sheets of recording paper if a result of the judgment by said judging step is negative.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

42. (*Original*) An image data processing method according to claim 38, wherein said output process comprises issuing a command instructing partition paper to be supplied between said first group of image and said second group of image data.

43. (*Original*) An image data processing method according to claim 31, comprising managing said group of image data for each page, and wherein said distributing process comprises distributing said group of image data for each page.

44. (*Original*) An image data processing method according to claim 43, comprising converting said group of image data into a format that enables said group of image data to be managed for each page.

45. (*Original*) An image data processing method according to claim 31, wherein said printing attributes include at least color printing, and black-and-white printing.

46. (*Currently Amended*) A controller for controlling an image processing system comprising a plurality of image forming apparatuses, comprising:

separated transmission control means for separating a group of image data to be printed into a plurality of groups and transmitting the groups to said plurality of image forming apparatuses[[:]],

wherein said separated transmission control means provides such control that image processes are executed on the image data to be transmitted depending on printing attributes of the image forming apparatuses to which the image data are to be transmitted, in a manner such that different processes are executed for respective ones of the groups and the image data that have been processed for the respective ones of the groups are transmitted to respective corresponding ones of the image forming apparatuses.

wherein said plurality of image forming apparatuses include a first image forming apparatus, and a second image forming apparatus, and

SN. 09/705.055

ATTORNEY DOCKET NO. CANO:014

wherein said separated transmission control means transmits image data of said group of image data which are contained in a group to be transmitted to said first image forming apparatus, to said first image forming apparatus with a resolution which is suitable for said first image forming apparatus, and transmits image data of said group of image data which are contained in a group to be transmitted to said second image forming apparatus, to said second image forming apparatus with a resolution which is suitable for said second image forming apparatus.

47. (*Canceled*)

48. (*Original*) A controller according to claim 47, wherein said first image forming apparatus is a black-and-white image forming apparatus, said second image forming apparatus is a color image forming apparatus, said group of image data to be printed include color image data, and black-and-white image data, and wherein said separated transmission control means determines, for each page, whether the image data contained in said group of image data are colored or black and white, and transmits the black-and-white image data of said group of image data to said first image forming apparatus, while transmitting the color image data of said group of image data to said second image forming apparatus.

49. (*Original*) A controller according to claim 48, wherein said separated transmission control means determines whether the image data for all pages in said group of image data to be printed are colored or black and white, with the resolution suitable for said second image forming apparatus, and transmits image data that have been determined to be black and white with the resolution suitable for said first image forming apparatus, while transmitting image data that have been determined to be colored to said second image forming apparatus as they were at a time of said determination.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

50. (*Original*) A controller according to claim 48, wherein said separated transmission control means determines whether the image data for all pages in said group of image data to be printed are colored or black and white with a low resolution, and transmits image data that have been determined to be black and white with the resolution suitable for said first image forming apparatus, while transmitting image data that have been determined to be colored to said second image forming apparatus with the resolution suitable for said second image forming apparatus.

51. (*Original*) A controller according to claim 46, wherein said controller receives image data from an external device and transmits the received image data to said plurality of image forming apparatuses.

52. (*Original*) An image forming apparatus for forming, on sheets, image data of a group of image data which are for pages corresponding to image data having a first attribute, the group of image data including image data having a second attribute for formation of images by another image forming apparatus, and the image data having the first attribute which is different from said second attribute,

wherein the image forming apparatus selects one of a plurality of operation modes depending on a command from a user, the operation modes including an insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in which the image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the apparatus inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

53. (*Original*) An image forming apparatus according to claim 52, wherein in selecting said insertion mode, said image forming apparatus selects one of a plurality of insertion modes depending on a command from a user, the insertion modes including a first insertion mode in which as many sheets as continuous pages corresponding to the image data of said group of image data which have said second attribute are fed from said another feeding unit and inserted into positions of the continuous pages corresponding to the image data having said second attribute, and a second insertion mode operating in a manner such that only one sheet from said another feeding unit is inserted even into the positions of the continuous pages corresponding to the image data of said group of image data which have said second attribute.

54. (*Original*) An image forming apparatus according to claim 53, wherein in selecting said first insertion mode, either a mode for permitting image formation on sheets from said another feeding unit or a mode for inhibiting the image formation on the sheets from said another feeding unit is selected based on a command from the user.

55. (*Original*) An image forming apparatus according to claim 52, wherein said image data having the first attribute are black-and-white image data, and said image data having the second attribute are color image data.

56. (*Original*) An image forming apparatus according to claim 52, wherein said image forming apparatus is a black-and-white image forming apparatus, and said another image forming apparatus is a color image forming apparatus.

57. (*Original*) An image forming apparatus according to claim 52, wherein said image data having the first attribute are color image data, and said image data having the second attribute are black-and-white image data.

58. (*Original*) An image forming apparatus according to claim 56, wherein said image forming

SN. 09/705.055

ATTORNEY DOCKET NO. CANO:014

apparatus is a color image forming apparatus, and said another image forming apparatus is a black-and-white image forming apparatus.

59. (*Currently Amended*) A controller for controlling an image processing system comprising a plurality of image forming apparatuses including a first image forming apparatus, and a second image forming apparatus, comprising:

control means for causing said first image forming apparatus to form images on sheets with image data of a group of image data which are for pages corresponding to image data having a first attribute, the group of image data including said image data having the first attribute, and image data having a second attribute, and causes said second image forming apparatus to form images on sheets with image data for pages corresponding to said image data having the second attribute[[:]].

wherein said control means controls said first image forming apparatus to operate by selecting one of a plurality of operation modes depending on a command from a user, the operation modes including an insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the control means inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute.

60. (*Original*) A control method of controlling an image processing system comprising a plurality of image forming apparatuses including a first image forming apparatus, and a second image forming apparatus, the method comprising the steps of:

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

transmitting a group of image data including image data having a first attribute for formation of images by said first image forming apparatus, and image data having a second attribute for formation of images by said second image forming apparatus;

inputting a command instructing said first image forming apparatus to select one of a plurality of operation modes including an insertion mode in which image data of said group of image data which are for pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the methods inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute; and

transmitting the input command.

61. (*Original*) A computer readable storage medium storing a program for causing an image processing system comprising a plurality of image forming apparatuses including a first image forming apparatus, and a second image forming apparatus to execute the steps of:

transmitting a group of image data including image data having a first attribute for formation of images by said first image forming apparatus, and image data having a second attribute for formation of images by said second image forming apparatus;

inputting a command instructing said first image forming apparatus to select one of a plurality of operation modes including an insertion mode in which image data of said group of image data which are for pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the methods inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute; and

transmitting the input command.

62. (*Currently Amended*) A controller method of controlling an image processing system comprising a plurality of image forming apparatuses, the method comprising the step of:

separating a group of image data to be printed into a plurality of groups and transmitting the groups to said plurality of image forming apparatuses;

wherein said step provides such control that image processes are executed on the image data to be transmitted depending on printing attributes of the image forming apparatuses to which the image data are to be transmitted, in a manner such that different processes are executed for respective ones of the groups and the image data that have been processed for the respective ones of the groups are transmitted to respective corresponding ones of the image forming apparatuses.

wherein the plurality of image forming apparatuses include a first image forming apparatus, and a second image forming apparatus, and

wherein said step provides such control that image data of the group of image data which are contained in a group to be transmitted to the first image forming apparatus is transmitted to the first image forming apparatus with a resolution which is suitable for the first image forming apparatus, and image data of said group of image data which are contained in a group to be transmitted to the second image forming apparatus is transmitted to the second image forming apparatus with a resolution which is suitable for the second image forming apparatus.

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

63. (*Currently Amended*) A computer readable storage medium storing a program for causing an image processing system comprising a plurality of image forming apparatuses to execute the step of:

separating a group of image data to be printed into a plurality of groups and transmitting the groups to said plurality of image forming apparatuses[(:)],

wherein said step provides such control that image processes are executed on the image data to be transmitted depending on printing attributes of the image forming apparatuses to which the image data are to be transmitted, in a manner such that different processes are executed for respective ones of the groups and the image data that have been processed for the respective ones of the groups are transmitted to respective corresponding ones of the image forming apparatuses,

wherein the plurality of image forming apparatuses include a first image forming apparatus, and a second image forming apparatus, and

wherein said step provides such control that image data of the group of image data which are contained in a group to be transmitted to the first image forming apparatus is transmitted to the first image forming apparatus with a resolution which is suitable for the first image forming apparatus. and image data of said group of image data which are contained in a group to be transmitted to the second image forming apparatus is transmitted to the second image forming apparatus with a resolution which is suitable for the second image forming apparatus.

64. (*Original*) A control method for controlling an image forming apparatus for forming, on sheets, image data of a group of image data which are for pages corresponding to image data having a first attribute, the group of image data including image data having a second attribute for formation of images by another image forming apparatus, and the image data having the first attribute which is different from said second attribute,

wherein the control method comprises selecting one of a plurality of operation modes depending on a command from a user, the operation modes including an insertion mode in which image data of said group of image data which are for the pages corresponding to said image data

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in which the image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the method inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute.

65. (*Original*) A computer readable storage medium storing a program for causing an image forming apparatus for forming, on sheets, image data of a group of image data which are for pages corresponding to image data having a first attribute, the group of image data including image data having a second attribute for formation of images by another image forming apparatus, and the image data having the first attribute which is different from said second attribute, to execute the step of:

selecting one of a plurality of operation modes depending on a command from a user, the operation modes including an insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in which the image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the method inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute.

SN. 09/705,055

ATTORNEY DOCKET No. CANO:014

66. (*Original*) A control method of controlling an image processing system comprising a plurality of image forming apparatuses including a first image forming apparatus, and a second image forming apparatus, the control method comprising the steps of:

causing said first image forming apparatus to form images on sheets with image data of a group of image data which are for pages corresponding to image data having a first attribute, the group of image data including said image data having the first attribute, and image data having a second attribute, and causing said second image forming apparatus to form images on sheets with image data for pages corresponding to said image data having the second attribute; and

controlling said first image forming apparatus to operate by selecting one of a plurality of operation modes depending on a command from a user, the operation modes including an insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the control means inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute.

67. (*Original*) A computer readable storage medium storing a program for causing an image processing system comprising a plurality of image forming apparatuses including a first image forming apparatus, and a second image forming apparatus, to execute the steps of:

causing said first image forming apparatus to form images on sheets with image data of a group of image data which are for pages corresponding to image data having a first attribute, the group of image data including said image data having the first attribute, and image data having a second attribute, and causing said second image forming apparatus to form images on sheets

SN. 09/705,055

ATTORNEY DOCKET NO. CANO:014

with image data for pages corresponding to said image data having the second attribute; and controlling said first image forming apparatus to operate by selecting one of a plurality of operation modes depending on a command from a user, the operation modes including an insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from a first feeding unit while sheets from another feeding unit which is different from said first feeding unit are inserted into pages at positions corresponding to image data of said group of image data which have said second attribute, and a non-insertion mode in which image data of said group of image data which are for the pages corresponding to said image data having the first attribute are formed on sheets from the first feeding unit while the control means inhibits insertion of sheets from the another feeding unit which is different from said first feeding unit into the pages at the positions corresponding to the image data of said group of image data which have said second attribute.